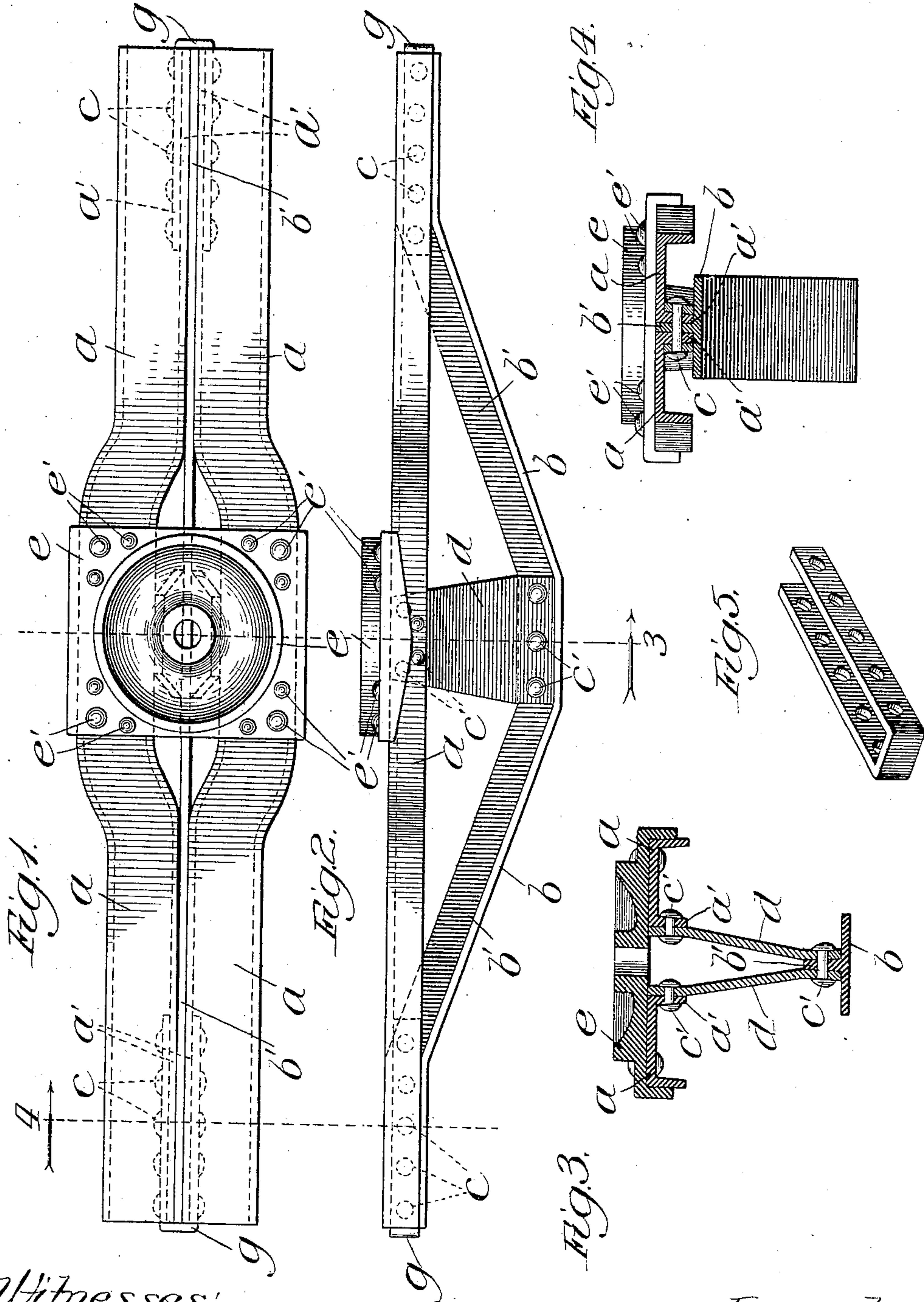


No. 862,843.

PATENTED AUG. 6, 1907.

S. OTIS.
BOLSTER.

APPLICATION FILED DEC. 20, 1906.



Witnesses:
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UNITED STATES PATENT OFFICE.

SPENCER OTIS, OF CHICAGO, ILLINOIS, ASSIGNOR TO NATIONAL PATENT HOLDING COMPANY,
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BOLSTER.

No. 862,843.

Specification of Letters Patent.

Patented Aug. 6, 1907.

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To all whom it may concern:

Be it known that I, SPENCER OTIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bolsters for Railway-Cars, of which the following is a specification.

My invention relates to bolsters for railway cars; and has for its object to provide an improved structure in which the required strength may be attained by the use of a minimum number of parts and by the use of parts which may be found upon the market in commercial shapes.

To this end my invention consists in the combinations and details hereinafter set forth and claimed.

In the accompanying drawings—Figure 1 is a top plan view of a bolster constructed in accordance with my invention. Fig. 2 is a side elevation of the bolster. Fig. 3 is a transverse section on the line 3 of Figs. 1 and 2. Fig. 4 is a transverse section on the line 4 of Figs. 1 and 2.

In constructing a bolster in accordance with my invention, I provide the top or compression member formed of two channel bars arranged in parallel relation, side by side, having their web portions *a* arranged horizontally and their flanges *a'* depending vertically therefrom. These channel bar members are arranged in juxtaposition at their ends and are spaced apart slightly to receive between the flanges *a'* the vertical flange portion *b'* of a T iron lower or tension member *b*.

It will be observed that the ends of the compression and tension members are secured together by rivets *c* passing through the vertical flanges of the members. At their middle points the channel bar top members are bowed outwardly to form a widened support for the center bearing *e*, which is secured to the top members by suitable fastening devices, such as rivets *e'*. The lower or tension member is downwardly bowed at its middle portion, and each of the channel bar members constituting the upper portion of the bolster is connected by a strut *d* to the vertical flange of the lower member.

In order to further strengthen the bolster at its ends to enable it to resist the strains applied thereto, I may use the loop *g* arranged horizontally around the ends of the bolster members, the side members of the loop engaging the flanges *a'* of the top bolster member. The rivets *c* are passed through the side members of

the loop and through the flanges of the top and bottom members of the bolster. Thus I provide a longer bearing for the rivets and provide a greater resistance for the strains at this point.

By constructing a bolster as shown and described, it will be seen that I have produced a bolster having a minimum number of parts in which great strength is combined with simplicity of construction, and that the bolster may be made from metal of commercial shapes which may be readily obtained in the market.

I claim:

1. A bolster for railway cars comprising an upper or compression member composed of spaced channel beams, and a lower or tension member formed of tee iron, said tension member having a flange secured at its ends to the adjacent flanges of the channel beams.

2. A bolster for railway cars comprising an upper member formed of parallel channel beams, and a lower member having a flange secured at its ends between the adjacent flanges of said channel beams.

3. A bolster for railway cars comprising an upper or compression member formed of spaced parallel channel beams having downwardly extending flanges, and a flanged lower or tension member having an upwardly extending flange entering the space between the channel beams and secured to the adjacent flanges of said channel beams.

4. A bolster for railway cars comprising an upper member composed of parallel channel beams having downwardly extending flanges, said channel beams having outwardly bowed middle portions, a lower member formed of tee iron having its central flange arranged vertically and extending between the adjacent flanges of the upper member at its ends, and means for securing the flanges of the upper and lower flanges together.

5. A bolster for railway cars comprising an upper member composed of channel beams having an outwardly bowed middle portion, a lower member composed of a single tee iron connected at its ends to the ends of the channel beams and having its middle portion downwardly bowed, and strut members connecting each of the channel beams to the tee iron member.

6. A bolster for railway cars comprising a top member composed of parallel flanged portions having their adjacent flanges spaced apart, a lower flanged member having a flange entering the space between the flanges of the top portions, a loop arranged around the end of the bolster members and having side members engaging the spaced flanges of the top portion, and means passing through the side members of the loop and the flanges for securing the members together.

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